growth of power engineering since nationalization. He quotes data and figures on hydrotechnical constructions, district heating systems and power systems. He devotes a chapter to the peculiarities and special features of electric power consumption in China. He also describes the fuel resources and fuel supply of electric power stations, the manufacture of power engineering equipment and discusses the problem of training personnel for the electrical-engineering industry in China. His closing chapter tells of the assistance supplied by the USSR in this field. There are no references.

Kozlov, V.A., Engineer. Municipal Electric Power Systems Abroad 232

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Power Engineering

The author presents a historical survey of the problem and describes in detail two examples (Berlin and Paris) of electric power supply systems abroad. There are 26 references, of which 8 are German, 7 Swiss, 9 English, and 2 Italian.

AVAILABLE: Library of Congress

JP/lsb
11-20-58

Card 14/14

STARIKOV, V.G., kand. ekon. nauk.

Selecting economically expedient standard cross sections for conductors of electric overhead transmission lines. Trudy LIMI no.19: 33-42 '57. (MIRA 11:6)

(Electric lines--Overhead)

ARTYUGIN, I.M.; GRACHEV, Yu.P.; DAVYDOV, L.N.; DOYNIKOV, Ya.P.; KIRPICHEV, V.I.; LEVENTAL', G.B.; MELENT'YEV, L.A.; MICHURIN, K.I.; NIKONOV, A.P.; SASHONKO, G.I.; STARIKOV, V.G.; FROLOV, V.I.; KHRILEV, L.S.; RABINOVICH, A.L., red.; SOBOLEVA, Ye.M., tekhn. red.

[Technical and economic principles of the expansion of heat supply engineering in power systems] Tekhniko-ekonomicheskie osnovy razvitiia teplofikatsii v energosistemakh. Moskva, Gos. energ. izd-vo, 1961. 318 p. (MIRA 15:5)
(Heat engineering) (Electric power plants)

AYZENBERG, B.L.; BOLOTOV, V.V. ; BRIL', R.Ya.; GERASIMOV, V.N.; GREKOV, V.I.; DOVETOV, M.Sh.; KAMENSKIY, M.D.; KLEBANOV, L.D.; KONSTANTINOV, B.A.; KUZ'MIN, V.G.; LYUBAVSKIY, V.I.; MELENT'YEV, L.A.; MIKHALEV, N.N.; POLYANSKIY, V.A.; RAZDROGINA, L.A.; SIVAKOV, Ye.R.; STARIKOV, V.G.; SAVASHINSKAYA, V.I.; SHAYOVICH, L.L.

Igor' Valentinovich Gofman, 1903-1963; obituary. Trudy LIEI no.51:3-4 '64. (MIRA 18:11)

STARIKOV, Vasiliy Ivanovich; KUZNETSOV, S.I., nauchn. red.

[Fire safety for cultural and educational institutions] Pozharnaia bezopasnost' kul'turno-prosvetitel'nykh uchrezhdenii. Moskva, Stroiizdat, 1965. 97 p.
(MIRA 18:3)

30143
S/194/61/000/007/073/079
D201/D305

9.6000 (1013, 1089, 1159)

AUTHORS: Isabayev, Ye.A., Kozak, L.V., Mikhaylov, V.F., Orlov, D.P., Starikov, V.M. and Chursin, G.P.

TITLE: Multi-channel amplitude analyzer with simple channel switching circuit

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1961, 34, abstract 7 K203 (V sb. Optika. Yadern. protsessy. Alma-Ata, 1959, 51-57)

TEXT: The description is given of the circuit of a 50-channel amplitude analyzer with amplitude-to-time conversion. The arrangement employs a simple time-discriminator circuit built around a 50-phase single-shot multivibrator, gating in sequence 50 coincidence circuits for the duration of 130 μ sec. The multi-vibrator is triggered by the leading edge of the transformed analyzed pulse of duration t. The trailing edge of the pulse is applied to the coincidence circuits and is transmitted to the output of the N-th channel,

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Multi-channel amplitude analyzer...

with N defined as N = t/130 μ sec. Each channel is terminated in a counter. The analyzer is being used at the Kazakhstan State University. 6 references. [Abstracter's note: Complete translation]

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DMITRICHENKO, G.S., kand. tekhn. nauk; STARIKOV, V.M., inzh.; VIGDORCHIK, V.M., kand. tekhn. nauk; NAUMOV, K.M., inzh.

Effect of the traveling speed of the DT-75 tractor on the stresses in suspension systems. Trakt. i sel'khozmash. no.8:5-7 Ag '65. (MIRA 18:10)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Dmitrichenko, Starikov). 2. Orenburgskiy sel'skokhozyaystvennyy institut (for Vigdorchik, Naumov).

LYSYY, A. [reviewer]; STARIKOV, V.N. [author]

Competition of Vologda ship repairmen ("Fighting to develop a progressive enterprise." V.N.Starikov. Reviewed by A.Lysyi). Sov.profsoiuzy 1 no.3:86-88 N '53. (MLRA 6:12)
(Starikov, V.N.) (Vologda--Ships--Maintenance and repairs) (Maintenance and repairs--Ships--Vologda)

SAVITSKIY, Ye.M.; TYLKINA, M.A.; ZHDANOVA, L.L.; ZUBKOVA, L.A.; STARKOV, V.N.; FOKIN, A.G.; PETROVA, L.S.; ARKUSHA, T.I.

Investigating the properties of rhenium and rhenium alloys with tungsten and molybdenum. Issl. po zharopr. splav. 9:194-203 '62. (MIRA 16:6)

(Rhenium--Testing)

STARIKOV, V.N., Cand Geog Sci — (diss) "Tavdinskiy lumber industrial ~~timber~~ region (Economic, geographical characteristics of the northeast rayons of Sverdlovskaya Oblast) Perm', 1959, 14 pp (Min of Higher Education USSR. Perm' State Univ im A.M. Gor'kiy) 165 copies (KL, 33-59, 117)

18.0000

75400
SOV/149-2-5-26/32

AUTHORS: Starikov, V. N., Sorokin, V. I.

TITLE: First Caucasian Interuniversity Conference of Students-Geologists

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Tsvetnaya metallurgiya, 1959, Vol 2, Nr 5, pp 175-179 (USSR)

ABSTRACT: From April 16 to 19, 1959, the above conference took place at the North Caucasian Mining Metallurgical Institute, Ordzhonikidze, at which student societies of a number of universtities and institutes participated. The conference was opened by a paper by student Kachurin, V. (SKGMI is the North Caucasian Mining Metallurgical Institute): "Concerning Aims of Soviet Geology in the Spirit of Decisions by the XXI Congress of the Communist Party of the Soviet Union." There followed 20 papers by students from Ordzhonikidze, Baku, Groznyy, Dnepropetrovsk, Kiev, Novocherkassk, Moscow, Rostov, Kharkov. Zubov, V. (Dnepropetrovsk) submitted a paper on "Scheelite-Bearing Skarns in one of the North Caucasian Deposits." Yushin,

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Yu. (Groznyy) read a paper on "An Improved Device for Determination of Magnetic Properties of Rocks - the 'Penetrometer'". A paper by Bochek, L. (Moscow), "Gas Content of Copper Pyrite Deposits in the Center of Northern Caucasus," was given. Mel'nikova, T. (Groznyy) presented a paper on "Bituminous Limestone of Northern Osetia." Drozdov, V., Miroshnichenko, A., and Stativkin, E. (Novocherkassk) presented a paper on "Structure and Origins of a Copper Pyrite of Central Caucasus." Independent work carried out by Kondakov, L., and Kondakova, S. (Ordzhonikidze) was the subject of a paper: "Microstructural Analysis of Surrounding Rocks as a Method of Determination of the Origin of Buronsk Cassiterite-Pyrite Deposit in Northern Osetian ASSR." Grigorovich, B. (Kiev) submitted a paper on "Mineral Waters of Kermadon." Konovalova, B. (Ordzhonikidze) submitted the results of a study under the direction of Mansurovskiy, A. P., and Kryazhev, G. S.: "Geological Structure and Methods of Study of a Caucasian Ore Deposit at the Sadonsk-Uman Anticlinal Fold." Potapov, V.

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(Ordzhonikidze) submitted a paper on "Structure of Kholstin Polymetallic Deposit." This work was carried out under the direction of Docent Baklakov, M. S. The following papers were submitted: Kirillova, G., and Yegorova, E. (Rostov): "Micropaleontological Character of the Upper Foraminiferic Formation in River Belaya Area in Northern Caucasus"; Dubrovinskiy, R. (Ordzhonikidze): "Application of Absorption Spectroscopy to Mineralogy of Cleiophane in the Verkhne-Zgidskiy Deposit"; Mirzoyeva, F. (Baku): "Hydrothermally Modified Rocks of Azerbeydzhan SSR"; Lebed'ko, G. (Rostov on Don): "Petrographic Pecularities of the Baryta Zone Near Karabek in Northern Caucasus"; Buniat-Zade Zia Aliogly(Baku): "Diapirism in South-Eastern Caucasus"; Berger, M., (Kharkov): "Petrography and Origins of Kiya-Shaltyrsk Urtite Deposits"; Denisenko, V. (Dnepropetrovsk: "Stratigraphy of Jurassic Deposits at Karachayevsk"; Kianits, A., Kovalenko, A.: "New Data on Geology, Magmatism and Metal Origins of Northern Caucasus"; Efendiyev, E. (Baku): "Useful Minerals of Azerbeydzhan

First Caucasian Interuniversity Conference of Students-Geologists

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SSR"; Shinkarenko, V. (Novocherkassk): "Permatites of Kaibsk Granite Mountain Range, Their Origin and Classification." The North Caucasian Geological Administration and the trust "Sevkavkaztsvetmetrazvedka" (North Caucasian Prospecting of Nonferrous Metals) participated in the work of the conference. The next conference will take place in Baku in 1960.

Card 4/4

STARIKOV, V.N.

Population geography of Krasnoyarsk Territory. Sib. geog. sbor. no.2:196-205 '63. (MIRA 16:11)

PEKH, Yu.Yu.; STARIKOV, V.N., red.; MAKAROV, I.M., tekhn.red.

[Increasing the size of packages on PM-114-L, PM-88-L and PM-88Ll ring-spinning machines] Uvelichenie pakovok na priadil'nykh kol'tsevykh mashinakh: MP-114-L, PM-88-L i PM-88Ll. Smolensk, Sovet narodnogo khoziaistva Smolenskogo ekon.administrativnogo raiona, 1960. 6 p. (MIRA 13:11)

1. Moscow. Vystavka dostizheniy narodnogo khozyaystva SSSR.
2. Zaveduyushchiy pryadil'nym proizvodstvom Smolenskogo l'nokombinata (for Pekh).
(Spinning machinery)

LEBEDEV, K.A.; STARIKOV, V.N., red.; MAKAROV, I.M., tekhn.red.

[Manufacture of flax yarns from boiled and bleached roving] Vyrabotka l'nianykh priazh iz varenoi i belenoi rovnitsy. Smolensk, Sovet narodnogo khoz.Smolenskogo ekon.administrativnogo raiona, 1960. 11 p. (MIRA 13:11)

1. Moscow. Vystavka dostizheniy narodnogo khozyaystva SSSR.
2. Glavnyy inzhener Smolenskogo l'nokombinata (for Lebedev).
(Yarn) (Flax processing machinery)

S/056/61/040/002/025/047
B102/B201

AUTHORS: Granovskiy, Ya. I., Starikov, V. N.

TITLE: Determination of the parity of strange particles with the aid of dispersion relations

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 2, 1961, 537-545

TEXT: The methods generally applied to determine the parities of strange particles, which are based upon a phenomenological analysis of their production or absorption, respectively, involve considerable difficulties; above all, to be able to determine the parity of a particle, one must know the nuclear interaction properties of the partner particle, which fact, however, occurs very rarely. The possibility of using the dispersion relations for determining the parity of strange particles has already been reported about by P. T. Matthews and A. Salam (Phys. Rev. 110, 565, 1958), K. Igi (Progr. Theor. Phys. 19, 238, 1958), and C. Goebel (Phys. Rev. 110, 572, 1958). The method is essentially based upon the fact

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Determination of the parity of ...

that the sign of the pole term appearing in consequence of a transition into an intermediate state containing one hyperon, depends on the parity of the Kp system with respect to this hyperon (See Ref. 2: Phys. Rev. Lett. 2, 510, 1959; Phys. Rev. 113, 1635 and 1692, 1959; Nuovo Cim. 13, 224, 1959 and 15, 986, 1960). To calculate the pole terms one must know the dispersion integral and the real part of the scattering amplitude, which is possible when availing oneself of experimental data. Unlike other investigations (e.g., Ref. 2), the present study has not been conducted with the simplest approximations with respect to $\sigma(E)$, but a complete analysis of all data has been made with the least squares method. The accuracy of calculations can thus be estimated, and a number of problems arising in Ref. 2 (Nuovo Cim.-papers) can be solved. The first part of the present paper contains a discussion of the analysis of experimental data; the data concerned are taken from a lecture by L. Alvarez in Kiyev (KN interaction). These numerical data are presented in Fig. 1 and Table 1, and Fig. 2 and Table 2, respectively. For the study of $\sigma(\omega) = \sum_{k=1}^{n} C_k \varphi_k(\omega)$, the interpolation

interval is divided into two parts ($m \leq \omega \leq 1.1$ m; $1.1\ m \leq \omega \leq 5$ m); here, as in the whole of the following paper, energy is expressed in rest-mass units of the K^- meson (m = 494 Mev). In the first part, $\sigma^-_{tot} = \sigma^-_{scat} + \sigma^-_{absorp}$ and $\sigma^-_{scat} = 90 \pm 17$ mb, $|k|\sigma^-_{abs} = (7\pm1)\ m^{-1}$. The smoothed σ^-_{tot} curve is employed in the second part (Table 2). Since no cross section values are known for $\omega > 5$ m, it is assumed that $\sigma^-_{tot} = \sigma^+_{tot}$, which, while not at all fitting the experimental data at $\omega = 5$ m, is accurate within 5% at higher energies. The choice of dispersion relations is discussed in the second section of the paper. The dispersion relations offered by Matthews and Salam for the K^-p scattering with the threshold energies $\omega_{\Lambda\pi} = 0.474$ m, $\omega_{\Sigma\pi} = 0.129$ m, and $\omega_{\Sigma} = 0.320$ m, are given in a form that better converges at large ω, and formula

$$D_-(\omega) - D_+(\omega) = B_-(\omega) - R(\omega) + \frac{2\omega}{4\pi^2}\int_m^\infty \frac{\sigma_- - \sigma_+}{\omega'^2 - \omega^2}\, k'd\omega' + \frac{2\omega}{\pi}\int_{\omega_{\Lambda\pi}}^m \frac{A_-d\omega'}{\omega'^2 - \omega^2} \quad (3.6)$$

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is obtained (according to Matthews-Salam); according to Igi:

$$D_+(\omega)-\frac{\omega+m}{2m}D_+(m)+\frac{\omega-m}{2m}D_-(\omega)=\frac{k^2}{4\pi^2}\int_m^\infty\frac{d\omega'}{k'}\left[\frac{\sigma_+}{\omega'-\omega}+\frac{\sigma_-}{\omega'+\omega}\right]+$$

$$+\frac{k^2}{\pi}\int_{\omega_{\Lambda\pi}}^m\frac{A_-d\omega'}{k'^2(\omega'+\omega)}+2F\frac{k^2}{\omega} \qquad (3.7)$$

and according to Amati (Ref. 2):

$$\frac{D_+(\omega)-D_+(m)}{\omega-m}=\frac{B_+(\omega)-B_+(m)}{\omega-m}+$$

$$+\frac{1}{4\pi^2}\int_m^\infty k'd\omega'\left[\frac{\sigma_+}{(\omega'-\omega)(\omega'-m)}-\frac{\sigma_-}{(\omega'+\omega)(\omega'+m)}\right]-\frac{1}{\pi}\int_{\omega_{\Lambda\pi}}^m\frac{A_-d\omega'}{(\omega'+\omega)(\omega'+m)} \qquad (3.8).$$

(3.6) and (3.7) are applied at $\omega = m$, (3.8) at $\omega = 1.22$ m. The

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scattering lengths a, b are introduced: $D_+(\omega) = -ak/k_c$ and $D_-(\omega) = \pm bk/k_c$ (k_c being the momentum in the c.m.s.), and formulas

$$\pm b + a = B_1 + \frac{M}{M+m}\frac{2m}{4\pi^2}\left[\int_m^\infty \frac{\sigma_- - \sigma_+}{k'}\,d\omega' + \int_{\omega_{\Lambda\pi}}^m \frac{|k'|\sigma_{ab}^- d\omega'}{\omega'^2 - m^2}\right], \quad (3.10)$$

$$\pm b + a + \frac{2Mm}{M+m} D'_+(m) = B_2 + \frac{M}{M+m}\frac{m^2}{\pi^2}\left[\int_m^\infty \frac{d\omega'}{k'}\left(\frac{\sigma_+}{\omega' - m} + \frac{\sigma_-}{\omega' + m}\right) + \right.$$

$$\left. + \int_{\omega_{\Lambda\pi}}^m \frac{|k'|\sigma_{ab}^- d\omega'}{k'^2(\omega' + m)}\right], \quad (3.11)$$

$$r_+(1{,}22m) = B_3 + \frac{1}{\pi}\int_m^\infty k'd\omega'\left[\frac{\sigma_+}{(\omega' - 1{,}22m)(\omega' - m)} - \frac{\sigma_-}{(\omega' + 1{,}22m)(\omega' + m)}\right] -$$

$$- \frac{1}{\pi}\int_{\omega_{\Lambda\pi}}^m \frac{|k'|\sigma_{ab}^- d\omega'}{(\omega' + 1{,}22m)(\omega' + m)}. \quad (3.12)$$

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are obtained. The fourth part deals with the calculation of the pole terms; the latter can be determined by the dispersion relations (3.10)-(3.12), and can be expressed by a, b and the dispersion integrals. Numerically one obtains: $a = (0.8389 \pm 0.0268)\ m^{-1}$, and $b = (2.046 \pm 0.330)\ m^{-1}$, $D_+'(m) = (-0.26 \pm 1.65)\ m^{-2}$, $r_+ = (-0.22 \pm 1.04)\ m^{-2}$. The dispersion integrals are subdivided after the four integration intervals $\omega_{\Lambda\pi} \leq \omega' \leq m$, $m \leq \omega' \leq 1.1\ m$, $1.1\ m \leq \omega' \leq 5\ m$, $5\ m \leq \omega' \leq \infty$. $b_{tot}^- = b_{tot}^+ = 13 \pm 1$ mb is put for the last interval. The pole terms B_i can be determined by

$$B_l = \bar{B}_l + \sum_{k=1}^{10} b_{lk}\Delta C_k, \tag{4.8}$$

$$\overline{\Delta C_k} = 0, \qquad \overline{\Delta C_k \Delta C_l} = \delta_{kl} D(C_k), \tag{4.9}$$

$$b_{lk} = \begin{pmatrix} 0{,}073 & -0{,}105 & 0{,}132 & -0{,}039 & 0{,}025 & -0{,}006 & \begin{matrix}0{,}010\\-0{,}029\end{matrix} & \begin{matrix}0{,}030\\0{,}036\end{matrix} & & 0 \\ 1{,}773 & -5{,}034 & 6{,}362 & -0{,}025 & 0{,}024 & -0{,}017 & \begin{matrix}0{,}010\\-0{,}029\end{matrix} & \begin{matrix}0{,}037\\0{,}043\end{matrix} & -0{,}008 & -0{,}009 \\ 0{,}662 & -3{,}235 & 7{,}213 & 0{,}123 & -0{,}008 & -0{,}104 & -0{,}002 & 0{,}057 & -0{,}001 & -0{,}031 \end{pmatrix}. \tag{4.10}$$

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(4.10);

their numerical values are given in Table 4 for i = 1, 2, 3. Table 3 contains the same terms, expressed by the (unknown) parities and the coupling constants of the strange particles. By combining the data of these tables, one obtains (Table 3) the relation $a_{\Lambda} g^2_{\Lambda}/4\pi +$ $+ a_{\Sigma} g^2_{\Sigma}/4\pi = B$; the coefficients a_Y can be taken from Table 3. They are a function of the parity. B (cf. Table 4) also depends on the sign of the potential of the $\bar{K}p$ interaction. Not only one, but all dispersion relations are considered and regarded as a system of equations treated with respect to the unknown coupling

i	$a_{i\Lambda}$	$a_{i\Sigma}$
1	-2.296 0.123	-2.717 0.114
2	-2.663 0.143	-2.697 0.113
3	-9.305 0.498	-7.540 0.316

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Determination of the parity of ...

constants. One obtains

$$a_{1\Lambda}g_\Lambda^2/4\pi + a_{1\Sigma}g_\Sigma^2/4\pi = B_1, \qquad a_{2\Lambda}g_\Lambda^2/4\pi + a_{2\Sigma}g_\Sigma^2/4\pi = B_2,$$
$$a_{3\Lambda}g_\Lambda^2/4\pi + a_{3\Sigma}g_\Sigma^2/4\pi = B_3. \tag{5.2}$$

where

$$\begin{vmatrix} a_{1\Lambda} & a_{1\Sigma} & B_1 \\ a_{2\Lambda} & a_{2\Sigma} & B_2 \\ a_{3\Lambda} & a_{3\Sigma} & B_3 \end{vmatrix} = 0 \tag{5.3}$$

holds. (5.2) is only positively solvable, if the parities are chosen as follows: $p(K^+\Lambda_o) > 0$, $p(K^+\Sigma_o) < 0$. Here, the coupling constants are $g^2_\Lambda/4\pi = 0.28 \pm 0.67$ and $g^2_\Sigma/4\pi = 12.7 \pm 13.6$. The proportionality factor is found to be $k = (\omega_\Sigma + M + M_\Sigma)/(\omega_\Sigma + M - M_\Sigma) = -23.9$.
Summing up: 1) When determining the parities it is not sufficient to

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use the sign of the pole term only (as has been done in Refs. 1, 2), but the dispersion relations must be taken as equations for g_Y^2. 2) Opposed parity of the hyperons is most probable, with the g_Y^2 differing by about the 40-fold. 3) No assumptions must be made concerning the scattering lengths of the K^- meson. 4) The dispersion relation by Igi leads to a large spread of the quantities investigated. 5) The contribution made by absorption is small in the dispersion integrals, with extrapolations being facilitated in the nonphysical region. Professor Zh. S. Takibayev is thanked for his interest, and Professor L. Alvarez and A. Rosenfeld for having supplied unpublished papers, A. Akhmedshina for her assistance in the calculations. There are 2 figures, 4 tables, and 7 references: 2 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut yadernoy fiziki Akademii nauk Kazakhskoy SSR (Institute of Nuclear Physics, Academy of Sciences, Kazakhskaya SSR)

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S/056/62/043/002/024/053
B104/B108

AUTHORS: Cranovskiy, Ya. I., Starikov, V. N.

TITLE: Determination of the parity and coupling constant of a Σ-hyperon with K-mesons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 2(8), 1962, 525-529

TEXT: With the aid of experimental data on the K-meson scattering from neutrons and the dispersion relations

$$D_-(\omega) = B_-(\omega) + \frac{1}{\pi}\int\limits_{\omega_{\Lambda\pi}}^{\infty} \frac{A^{(-)}(\omega')\,d\omega'}{\omega' - \omega} + \frac{1}{\pi}\int\limits_{K}^{\infty} \frac{A^{(+)}(\omega')\,d\omega'}{\omega' + \omega}, \qquad (2.1)$$

$$D(\omega) = \operatorname{Re} M(\omega), \qquad A(\omega) = \operatorname{Im} M(\omega), \qquad (2.2)$$

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for the forward scattering of K^- mesons from a nucleon (Ya. I. Granovskiy et al., ZhETF, 40, 537, 1961) it is shown that the parity of the Σ-hyperon $f_\Sigma^2 = -0.5 \pm 0.22$ is negative and the coupling constant $g_\Sigma^2/4\pi = 10 \pm 4$. The parity of the Λ-hyperon is determined using the new coupling constant and the relations of P. T. Matthews et al. (Phys. Rev., 110, 569, 1958) and of C. Goebel (Phys. Rev., 110, 572, 1958). It is found to be $f_\Lambda^2 = -0.04 \pm 0.40$. f_Λ^2, thus being negative with a probability of 54% and positive with a probability of 46%. The determination of the parity of the Λ-hyperon requires more exact experimental data. There is 1 figure.

ASSOCIATION: Institut yadernoy fiziki Akademii nauk Kazakhskoy SSR (Institute of Nuclear Physics of the Academy of Sciences Kazakhskaya SSR)

SUBMITTED: February 13, 1962

STARIKOV, V.N.

Types of threshold resonances. Izv. AN Kazakh. SSR. Ser. fiz.-mat. nauk no. 2:40-47 '63. (MIRA 17:6)

GRANOVSKIY, Ya.I.; PANTYUSHIN, A.A.; STARIKOV, V.N.

"Threshold" origin of inelastic resonances. Izv. AN Kazakh. SSR. Ser. fiz.-mat.nauk no. 2:48-51 '63. (MIRA 17:6)

NAZAROV, I.S. [deceased]; KOROCHKIN, Ye.I.; NEDIOKRITSKIY, Ye.L.; GLADKIKH, B.Ye.; SHARIKOV, V.S.; VASEV, S.A.

Rapid heating of steel in compartment furnaces. Izv.vys.ucheb. zav.; chern.met. 5 no.6:155-166 '62. (MIRA 15:7)

1. Sibirskiy metallurgicheskiy institut.
(Furnaces, Heating)

STARIKOV, V.S.

Larion Rossokhin and the beginning of the studies of Chinese pyrotechnics; unpublished manuscript of "Detailed description of various Chinese fire fountains and rockets" by Rossokhin. Iz ist.nauki i tekh.v stran.Vost. no.2:100-125 '61. (MIRA 14:9)
(China--Fireworks)
(Rossokhin, Ilarion Kalinovich, 1707 or 1717-1761)

STARIKOV, V.S.

History of Chinese agricultural tools in northeastern China. Iz. ist. nauki i tekh. v stran. Vost. no.1:81-126 '60. (MIRA 14:8)
(China--Agricultural implements)

STARIKOV, V.S.

Application of hydrochemical sampling as practiced in the Kakadur-Khanikomskiy deposit in North Ossetia. Izv. vys. ucheb. zav.; tsvet. met. 3 no.3:8-11 '60. (MIRA 14:3)

1. Severokavkazskiy gornometallurgicheskiy institut Kafedra poleznykh iskopayemykh i poiskovo-razvedochnogo dela.
(Ossetia—Ore deposits) (Ores—Sampling and estimation)

CHERNITSYN, V.B.; STARIKOV, V.S.

Some characteristics of the geological structure of the Avsandur complex ore occurrence (Central Caucasus). Izv. vys. ucheb. zav.; tsvet. met. 3 no.5:3-8 '60. (MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet i Severokavkazskiy gornometallurgicheskiy institut. Rekomendovana kafedroy poleznykh iskopayemykh i poiskovo-razvedochnogo dela Severo-kavkazskogo gornometallurgicheskogo instituta.
(Caucasus, Northern--Ore deposits)
(Nonferrous metals)

STARIKOV, V.S.

Possibility of using biogeochemical methods of prospecting in the region of the "Khanikomskiy" complex ore deposit in Northern Caucasus. Izv. vys. ucheb. zav.; tsvet. met. 3 no. 6:3-8 '60. (MIRA 14:1)

1. Severokavkazskiy gornometallurgicheskiy institut. Kafedra poleznykh iskopayemykh i poiskovo-razvedochnogo dela.
(Caucasus, Northern--Geochemical prospecting)

STARIKOV, V.S.; CHERNITSYN, V.G.; TSOGOYEV, V.B.

Geological structure of Kakadur-Khanikomskiy complex metal deposit in the jurassic schists of mountainous Ossetia. Izv. vys. uchsb. zav.; tsvet. met. 4 no.1:3-8 '61. (MIRA 14:2)

1. Severokavkazskiy gornometallurgicheskiy institut, Moskovskiy gosudarstvennyy universitet i Trest "Severkavtsvetmetrazvedka." Rekomendovana kafedroy poleznykh iskopayemykh i poiskovorazvedochnogo dela Severokavkazskogo gornometallurgicheskogo instituta.
(Ossetia—Ore deposits) (Nonferrous metals)

MAROCHKIN, A.S.; STARIKOV, V.S.

Some structural elements of the Kakadur-Khanikomskoye deposit. Izv. vys. ucheb. zav.; tsvet. met. 4 no.4:10-15 '61. (MIRA 14:8)

1. Trest "Sevkavtsvetmetrazvedka" i Severokavkazskiy gornometallurgicheskiy institut.
(Ossetia--Ore deposits)
(Geology, Structural)

TSOGOYEV, V.B.; GORELOV, V. Ye.; POLKVOY, P.A.; STARIKOV, V.S.

Characteristics of the geological structure of the Kadat-Khampaladag ore zone in Northern Ossetia. Izv. vys. ucheb. zav.; tsvet. met. 6 no.3:3-10 '63. (MIRA 16:9)

1. Severokavkazskiy gornometallurgicheskiy institut, kafedra geologii i mineralogii.
(Ossetia, North—Geology, Structural)

STARIKOV, V.S.

Highspeed heating of carbon and alloy steel billets in a cylindrical--type compartment furnace. Izv. vys. ucheb. zav.; chern. met. 8 no.2: 161-167 '65. (MIRA 18:2)

1. Sibirskiy metallurgicheskiy institut.

L 1653-66 EWT(m)/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HW

ACCESSION NR: AP5021620 UR/0286/65/000/013/0101/0101
621.979.984.002.54

AUTHOR: Shofman, L. A.; Gedymin, Yu. Yu.; Rozhkov, V. M.; Starikov, V. S.; Kryuchkov, M. A.; Davydov, G. A.; Akhmetshin, M. A.; Kvitnitskiy, A. N.; Rogozinskiy, A. A.; Feygin, V. I.; Yegorov, I. V.; Roytbarg, L. Kh.; Yermanok, M. Z.; Rodionov, A. S.

TITLE: Method for tube extrusion. Class 49, No. 172601

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 101

TOPIC TAGS: metal, metal tube, metal extrusion, tube extrusion

ABSTRACT: This Author Certificate introduces a method for tube extrusion from solid ingots. In this method the metal is first divided into several strips which are subsequently welded in the next die. In order to reduce the extrusion pressure, the diameter of the ingot should be smaller than that of the extruded tube. [AZ]

ASSOCIATION: none

SUBMITTED: 30Jan62 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4093

Card 1/1

L 1655-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(c)
JD/HW
ACCESSION NR: AP5021621

UR/0286/65/000/013/0102/0102
621.979.984.002.54

AUTHOR: Shofman, L. A.; Gedymin, Yu. Yu.; Rozhkov, V. M.; Starikov, V. S.; Kryuchkov, M. M.; Davydov, G. V.; Akhmetshin, M. A.; Kvitnitskiy, A. N.; Rogozinskiy, A. A.; Feygin, V. I.; Yegorov, I. V.; Roytbarg, L. Kh.; Yermanok, M. Z.; Rodionov, A. S.

TITLE: Tool for extruding of tubes. Class 49, No. 172602

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 102

TOPIC TAGS: tube, metal tube, tube extrusion, extrusion tool, extrusion press

ABSTRACT: This Author Certificate introduces a tool for the extrusion of tubes from solid ingots, i.e., container, mandrel, welding chamber, and die. In order to increase the rigidity of individual tools and ensure their precise position in relation to one another, thereby improving the accuracy of the extruded tubes, the mandrel is rigidly mounted in relation to the container; it carries an internal die and is provided with a central compartment for the ingot. Radial canals connect this compartment with the welding chamber, which is formed between container wall and the mandrel surface. [AZ]

Card 1/2

L 1655-66

ACCESSION NR: AP5021621

ASSOCIATION: none

SUBMITTED: 31Jan62 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4095

Card 2/2

KONSTANTINOV, M.M.; [illegible]EVOY, P.A.; STARIKOV, V.S.

Horizontal zoning of complex metal mineralization in the boundaries of the Jurassic schist belt of North Ossetia. Izv. vys. ucheb. zav.; geol. i razv. 8 no. 12:48-57 D '65 (MIRA 19:1)

1. Severo-Kavkazskiy gornometallurgicheskiy institut.

ACC NR: AP7002571 SOURCE CODE: UR/0413/66/000/023/0062/0062

INVENTOR: Gedymin, Yu.Yu.; Krivonos, G.A.; Starikov, V.S.; Kuznetsov, A.N.; Epshteyn, G.G.

ORG: none

TITLE: Method of lubricating the surface of aluminum or its alloys for extrusion . Class 23, No. 189111. [Announced by All-Union Scientific Research Institute for the Planning and Design of Metallurgical Machinery (Vsesoyuznyy nauchno-issledovstel'skiy i proyektno-konstruktorskiy institut metallurgicheskogo mashinostroyeniya)].

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 62

TOPIC TAGS: metal extrusion , ~~aluminum extrusion, aluminum alloy extrusion, extrusion lubricant~~, metal surface, lubrication technique, extruded aluminum

ABSTRACT: This Author Certificate introduces a method of lubricating the surface of aluminum or its alloys as a preparation for extrusion with the use of a fat-base lubricant. To improve the quality of the lubricant, the surface of a billet is first coated with a layer of aliphatic acid salt containing 10—20 carbon atoms in a molecule, and then with a fatty substance such as mineral oil, animal or vegetable fat or their mixture.

SUB CODE: 13/ SUBM DATE: 16Dec64 / ATD PRESS: 5113

Card 1/1 UDC: 621.892.6

STARIKOV, V.V.; ISKHAKOV, K.L.

Semiconductor device for measuring the consumption and speed of air. Trudy Inst. gor. dela AN Kazakh. SSR 11:174-178 '63. (MIRA 16:8)

(Aerodynamic measurements)

STARIKOV, V.V.; PRISHCHENKO, V.P.

Portable sampler of aerosols. Izv.AN Kazakh. SSR. Ser.tekh.i khim.nauk no.1:73-76 '63. (MIRA 17:3)

VOLOKHOV, M.I., kand. tekhn. nauk; ISCHENKOV, K.L., inzh.; TRISHCHENKO, V.P.; STARIKOV, V.V.

Purification of mine air of dust with electric filters. Bor'ba s sil. 6:158-163 '64 (MIRA 18:2)

1. Institut gornogo dela AN KazSSR.

STARIKOV, V.V.; ISKHAKOV, K.L.

New method of investigating the electrical properties of aerosols.
Trudy Inst.gor.dela AN Kazakh.SSR 15:97-106 '64. (MIRA 18:2)

BARKAN, Vitaliy Fedorovich; ZHDANOV, Vasiliy Konstantinovich; CHISTYAKOV, N.I., doktor tekhn. nauk, retsenzent; LEVITIN, Ye.A., inzh., retsenzent; SAMOYLOV, G.V., inzh., red.; STARIKOV, Ye.P., inzh., red.; SUVOROVA, I.A., red.izd-va; NOVIK, A.Ya., tekhn. red.

[Design of radio systems] Proektirovanie radiotekhnicheskikh ustroistv. Moskva, Oborongiz, 1963. 514 p. (MIRA 17:1)

KHOMYAKOV, Mikhail Vasil'yevich; STARIKOV, Yevgeniy Sergeyevich; TAYTS, A.A., red.; YATSENKO, G.G., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[Concerning the operation of electric substations and networks at industrial enterprises] Voprosy ekspluatatsii setei i podstantsii promyshlennykh predpriiatii. Moskva, 1959. 59 p. (Moskovskii dom nauchno-tekhnicheskoi propagandy. Peredovoi opyt proizvodstva. Seriia: Elektroenergetika, vyp. 6). (MIRA 14:1)

(Electric substations)
(Electric power distribution)

L 26111-66 EWT(m)/T TT/WE

ACC NR: AP6015117 (A) SOURCE CODE: UR/0065/66/000/005/0061/0061

AUTHOR: Stekhun, A. I.; Starikova, A. I.

42
B

ORG: none

TITLE: Preventing jet fuel contamination during railway transport

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 5, 1966, 61

TOPIC TAGS: jet fuel, fuel contamination, railway tank car/TS-1 jet fuel

ABSTRACT: New specifications for preparing railway tank cars for filling with jet fuel have been recommended. It is noted that poorly cleaned tank cars are the main source of jet fuel contamination. This was confirmed by measuring the change in the filtration rate of samples of TS-1 fuel taken immediately prior to filling the tank car (cleaned as per current specifications) and out of the tank car, for 25 lots of the fuel throughout the year. The recommended specifications provide for washing the tank car with hot water and detergents, or a water-kerosine emulsion, with subsequent wiping of the inside walls with illuminating kerosine. The effectiveness of these methods was confirmed in actual practice. [SM]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 4251

Card 1/1 UDC: 665.521.3

KRETOV, A.Ye.; STARIKOVA, A.I.

Acylation of arylsulfamides and N,N-dichlorobenzenesulfamide with phthalic acid derivatives. Ukr. khim. zhur. 24 no.3:344-347 '58. (MIRA 11:9)

1.Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Phthalic acid) (Sulfamide)

L 11304-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3000485 S/0129/63/000/005/0005/0012

AUTHOR: Gol'dshteyn, Ya. Ye.; Starikova, A. L.

TITLE: Effect of boron, molybdenum and titanium on the temper brittleness of structural steel.

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1963, 5-12

TOPIC TAGS: boron, molybdenum, titanium, temper brittleness, structural steel

ABSTRACT: Authors studied the effect of boron, molybdenum and titanium on temper brittleness of structural steel by adding admixtures into individual fractions of molten steel of separate melts. Test melts were made in a 60-kg capacity induction furnace, and various alloys were produced by introducing admixtures into the pouring ladle or directly into the furnace. The melts were then poured into four or five ingots of varying composition. These ingots were then forged into rods and samples for heat treatment were cut out from these rods. Authors conclude that effect of boron on tendency of carbon and alloy steel to reversible temper brittleness is not clear and depends upon basic composition of the steel. Boron, introduced into finished iron or steel which is not inclined to temper brittleness, does not intensively strengthen the sensitivity of the material to a change in

Card 1/2

L 11304-63
ACCESSION NR: AP3000485

cooling rate after tempering. The introduction of 0.1% titanium into low-carbon steel promotes its embrittlement and increases the tendency toward reversible temper brittleness. The effect of molybdenum is of an extreme character, and increasing its content above the optimum not only reduces its positive value, but can also be the self-contained reason for embrittlement of the steel, even after it has been cooled rapidly after high temper. The optimum content of molybdenum in structural steel depends upon the carbon content. Orig. art. has: 10 figures, 2 tables.

ASSOCIATION: Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii (Chelyabinsk Scientific-research Institute for Metallurgy)

SUBMITTED: 00	DATE ACQD: 3Jun63	ENCL: 00
SUB CODE: 00	NO REF SOV: 013	OTHER: 008

kes/ur
Card 2/2

ACCESSION NR: AR4018335 S/0137/64/000/001/1080/1080

SOURCE: RZh. Metallurgiya, Abs. 1I505

AUTHOR: Gol'dshteyn, Ya. Ye.; Starikova, A. L.

TITLE: The influence of boron and titanium on temper brittleness

CITED SOURCE: Sb. Teoriya i praktika metallurgii. Vyp. 5, Chelyabinsk, 1963, 107-122

TOPIC TAGS: low carbon steel, titanium steel, low carbon steel brittleness, shrinkage, shrinkage brittleness, boron steel, temper brittleness

TRANSLATION: The influence of B and Ti on temper brittleness of low-carbon steel was studied. The admixtures under study were introduced into individual proportions of liquid steel either separately or in combination with Si, Mn, Cr, and Mo; a_k and structure were determined on heat-treated samples at temperatures from minus 80 to plus 20 degrees. It was determined, that the temper brittleness of steel containing boron depends upon its basic composition. In pure Fe and in steel not inclined toward temper brittleness, B in the amount of 0.003% has little practical influence on a_k. In steel inclined toward temper brittleness,

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ACCESSION NR: AR4018335

a_k is lowered commensurate with the increase in content of B, Mn, and P. The brittleness of low-carbon steel sometimes increases with an inclusion of Ti (0.01%), the influence of which rises commensurate with the decrease in carbon content (meaning that as it decreases, more and more titanium is outside the carbide phase). In consideration of the favorable influence of Ti in obtaining residual fine-graininess of steel, it is recommended for inclusion in structural steels within the limits of 0.02-0.06%. Mo does not always lower the temper brittleness of structural steel, and its optimum content depends on the carbon content.

SUB CODE: MM ENCL: 00

Card 2/2

1. STARIKOVA, G. A.

2. USSR (600)

4. Stars, Variable

7. Irregular variable star RR Tauri.
Per. zvezdy 8 No. 3, 1951

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

69855

SOV/35-59-9-7019

3.1430

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 9, pp 22 - 23 (USSR)

AUTHOR: Starikova, G.A.

TITLE: The Proper Motions of Two Short-Period Cepheids the BP Vulpeculae and the AR Persei

PERIODICAL: Peremennyye zvezdy, 1956 (1958), Vol 11, Nr 5, pp 389 - 392

ABSTRACT: BP Vul. In order to determine the proper motion two photographs were used taken in July 1950, and the positions taken from the Paris Astrographic Catalogue of the epochs of July 1894 and July 1895. The measurements were carried out on Bamberg's measuring instrument. The following relative motions of the BP Vul were obtained:

$$\mu_\alpha \cos\delta = +0''.008 \pm 0''.004,$$
$$\mu_\delta = +0''.014 \pm 0''.004.$$

Absolute motion:

$$\mu_\alpha \cos\delta = +0''.011 \pm 0''.004, \qquad \mu = +0''.013 \pm 0''.004,$$
$$\mu_\delta = +0''.007 \pm 0''.004, \qquad \varphi = +57^\circ.5$$

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69855
SOV/35-59-9-7019

The Proper Motions of Two Short-Period Cepheids the BF Vulpeculae and the AR Persei

AR Per. Four photographs were used, which were taken in July 1933, July 1937, July 1953 and July 1954. The measurements were carried out on the KIM-3 measuring instrument. The following relative motion was obtained:

$$\mu_\alpha \cos\delta = +0''.020 \pm 0''.010,$$
$$\mu_\delta = +0''.012 \pm 0''.010.$$

Absolute motion:

$$\mu_\alpha \cos\delta = +0''.022 \pm 0''.010, \qquad \mu = +0''.023 \pm 0''.010,$$
$$\mu_\delta = +0''.006 \pm 0''.010, \qquad \varphi = 74^\circ.7.$$

Bibl. 5 titles.

N.P. Kukarkina

Card 2/2

SOV/35-59-8-6270

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 8, p 23

AUTHORS: Kurochkin, N.Ye., Starikova, G.A.

TITLE: RS Ophiuchi

PERIODICAL: Astron. tsirkulyar, 1958, August 26, Nr 194, pp 2 - 3

ABSTRACT: The data of observations of an increase in RS Oph brightness, carried out by P.P. Parenago, I.S. Astapovich and V.G. Teyfel', are presented. During the period from July 16 to August 22, 1958, the authors obtained 28 photographs of the RS Oph star. Twenty eight photographic estimates are given.

Card 1/1

SOV/35-59-8-6313

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 8, p 30

AUTHOR: Starikova, G.A.

TITLE: Magnitude-Color Functions of Stars

PERIODICAL: Astron. tsirkulyar, 1958, August 26, Nr 194, pp 16 - 19

ABSTRACT: The results of an investigation of the magnitude-color function for stars in the neighborhood of the Sun are presented. The investigation was carried out on the basis of the D φ (M) function obtained by two methods: 1) from bright stars up to $6^m.0$ vis, 2) from near stars within a sphere of 20 parsec in radius from the Sun. A summary chart catalogue of parallaxes compiled by the Chair of Stellar Astronomy of MGU was used for the determination of the final spectral classes and magnitudes. The spectral classes were converted into the values of color indices B-V according to the spectrum - (B-V) relationship, with allowance for the magnitude. The name of magnitude-color function is under-

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3(1) SOV/33-36-2-23/27

AUTHOR: Starikova, G.A.

TITLE: Relative Position and Magnitudes of Components of Trapezium Type Stars

PERIODICAL: Astronomicheskiy zhurnal,1959,Vol 36,Nr 2, p 374 (USSR)

ABSTRACT: On the basis of photographies made with the normal astrograph of the Tashkent Observatory, the relative distances and position angles of the components of trapezium type stars are determined. The differential refraction was taken into account according to V.A. Al'bitskiy and A.N. Deych. For the system ADS 3579 the photographic magnitudes of the components were measured with the microphotometer MF - 6, result :

$A = 5^m . 76$, $B = 7^m . 26$, $C = 10^m . 00$.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga (State Astronomical Institute imeni P.K. Shternberg)

SUBMITTED: June 23, 1958

Card 1/1

STARIKOVA, G.A.

Percentage of stars with various characteristics in the vicinity of the sun. Astron.tsir. no.203:8-9 Je '59. (MIRA 13:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga, Moskva.
(Stars--Distribution)

81840

S/033/60/037/03/009/027
E032/E314

3.1560

AUTHOR: Starikova, G.A.

TITLE: Luminosity and Colour Functions

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol 37, Nr 3, pp 476 - 491 (USSR)

ABSTRACT: The aim of the present paper was to study the luminosity and colour functions for stars, the luminosity and colour functions for different sequences in the colour-luminosity diagram and the quantitative composition of this diagram. The luminosity function was found for stars up to 6^m and stars in a sphere with a radius of 20 ps. The effect of absorption of light and luminosity classes were taken into account. The luminosity and colour functions were determined using the bright- and the near-stars methods. The bright-stars-method was first used by Kunitskiy (Ref 2) and later on by Parenago (Ref 3). This method is applicable only to absolutely bright stars. For absolutely weak stars the luminosity and colour functions can conveniently be set up using stars in a limited neighbourhood of the sun, where their total number is known. To begin with, the function $\varphi(M)$ was

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Luminosity and Colour Functions

determined using bright and near stars. Knowing the latter function and the distribution of the stars employed with respect to colour and luminosity classes, it is then possible to construct the luminosity functions and the colour functions for different luminosity classes. The values of the functions are reduced to the Galactic plane. The absolute magnitudes are visual and the colours are on the B-V system. A calculation is given of the percentage of stars with various characteristics. The relative numbers of stars along the main sequence are computed. It is concluded that there is a considerable admixture of stars of the spherical component among stars of other sequences with similar M and C characteristics. The results obtained suggest the presence of a large number of sub-dwarfs in the neighbourhood of the Sun. However, it is clear that the number of stars increases along the main sequence. The existence of a minimum at M = +9 (Figure 2) in the general luminosity function is apparently due to a minimum in the spherical component at this point. Table 10 and Figure 2 give

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Luminosity and Colour Functions

the number of stars at different points in the colour-luminosity diagram. The majority of the stars lie in the lower part of this diagram. Acknowledgments are made to Corresponding Member of the Ac.Sc. Professor P.P. Parenago, who suggested the present subject and directed this work. There are 3 figures, 11 tables and 21 references, 11 of which are Soviet, 1 German and 9 English.

ASSOCIATION: Gos. astronomicheskiy in-t im. P.K. Shternberga (State Astronomical Institute imeni P.K. Shternberg)

SUBMITTED: May 23, 1959

4

STARIKOVA, G.A.

Determining the expected number of stars in different regions of the sky. Astron.zhur. 37 no.4:671-676 Jl-Ag '60. (MIRA 13:8)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.
(Stars--Distribution)

STARIKOVA, G.A.

Brightness of RS Ophiuchi. Astron.tsir. no.208:20-21 Ja '60.
(MIRA 13:11)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.
(Stars, Variable)

STARIKOVA, G. A.

Cand Phys-Math Sci - (diss) "Study of function of brightiness and color of stars." Moscow, 1961. 10 pp; (Main Astronomical Observatory Academy of Sciences USSR, Pulkovskaya Observatory); 175 copies; price not given; (KL, 7-61 sup, 220)

KULIKOVSKIY, P.G.; KUROCHKIN, N.Ye.; STARIKOVA, G.A.

First results of measurements of binary stars with the SPM-1 polarization micrometer. Astron.zhur. 38 no.4:762-767 Jl-Ag '61. (MIRA 14:8)

1. Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga.
(Stars, Double) (Micrometer)

KUROCHKIN, N.Ye.; STARIKOVA, G.A.

Measurements of double stars with a polarization micrometer.
Soob. GAISH no.124:28-30 '62. (MIRA 16:7)

(Stars, Double)

STARIKOVA, G.A.

Comparison of the luminosity function of open clusters.
Astron.zhur. 39 no.6:1058-1066 N-D '62. (MIRA 15:11)

1. Gosudarstvennyy astronomicheskiy institut im.
P.K. Shternberga.
(Stars—Clusters)

ACCESSION NR: AR3010369 S/0269/63/000/008/0022/0022

SOURCE: RZh. Astronomiya. Abs. 8.51.187

AUTHOR: Starikova, G. A.

TITLE: New Herculean 1963

CITED SOURCE: Astron. tsirkulyar, no. 235, marta 12, 1963, 2

TOPIC TAGS: new star, new Herculean 1963

TRANSLATION: Photographic observations of a New Hearculean 1963 (Dahlgren) were carried out on 17-28 February 1963 by means of a 40-cm astrograph. Eight Plates were obtained. The comparison stars were α Lyr, ι Her, HR 6845 and star No. 52 in SA38. The brightness was evaluated by the Neyland-Blazhko method. The following results were obtained:

Card 1/

STARIKOVA, G.A.

Dispersion of two-color diagrams in the areas of open star clusters. Astron.zhur. 41 no.2:396-405 Mr-Ap '64. (MIRA 17:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

STARIKOVA, G.A.

Luminosity function of the system of galactic clusters. Astron. zhur. 41 no.4:752-757 Jl-Ag '64 (MIRA 17:8)

1. Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga.

STANKOVA, G.A.

Unified evolution of stars of open clusters and long-period cepheids. Astron.zhur. 42 no.5:1057-1061 S-O '65.

(MIRA 18:10)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

LYUBIMOVA, Ye.A.; LYUSOVA, L.N.; FIRSOV, F.V.; STARIKOVA, G.N.; SHUSHPANOV, A.P.

Determination of surface heat flow in Staraya Matsesta. Izv. AN SSSR. Ser. geofiz. no.12:1806-1811 D '60. (MIRA 13:12)

1. Institut fiziki Zemli AN SSSR.
(Earth temperature)

FROLOV, N.M.; AVER'YEV, V.V.; DUKHIN, I.Ye.; LYUBIMOVA, Ye.A.; Prinimali uchastiye: GOL'DBERG, V.M.; MAVRITSKIY, B.F.; SEDOV, N.V.; YAZVIN, L.S.; KUTASOV, I.M.; STARIKOVA, G.N.; KORTSENSHTEYN, V.N., red.

[Methodological instructions for studying thermal waters in boreholes.] Metodicheskie ukazaniia po izucheniiu termal'nykh vod v skvashinakh. Moskva, Nedra, 1964. 139 p. (Moskow. Vsesoiuznyi nauchno-issledovatel'skii institut gidrogeologii i inzhenernoi geologii. Trudy, no.17). (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii, Moskva (for Frolov, Gol'dberg, Mavritskiy, Sedov, Yazvin). 2. Institut vulkanologii Sibirskogo otdeleniya AN SSSR (for Aver'yev). 3. Institut merzlotovedeniya AN SSSR (for Dukhin). 4. Institut fiziki Zemli AN SSSR (for Lyubimova, Kutasov, Starikova).

SOV/180-59-1-14/29

AUTHORS: Presnyakov, A.A. and Starikova, G.V. (Alma-Ata)

TITLE: Conditions for the Appearance of Super-Plasticity in Cast Eutectics (Ob usloviyakh vozniknoveniya sverkh-plastichnosti v litykh evtektikakh)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 1, pp 75-77 + 1 plate (USSR)

ABSTRACT: Presnyakov and Chervyakova have described (Ref 1) and investigated (Ref 2) the effect of super-plasticity in Al-Cu eutectic rapidly cooled during crystallization. In the present article the authors describe work on the systems Al-Si (11.7% Si), Al-Ni (5.7% Ni) and Al-Fe (1.9% Fe) with the object of elucidating this effect in cast iron eutectics. Grade AI aluminium, grade Kr-1 silicon, N00-grade nickel and low-carbon steel were used. The alloys were superheated by 150-200°C before pouring into graphite and metal moulds. 5 X 20 mm working-section test-pieces were cut from the ingots. Plasticity in tension was determined at every 100°C, except near the eutectic temperature when the interval was reduced to 20°C. Heating time was 20 minutes. The

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Conditions for the Appearance of Super-Plasticity in Cast Eutectics

results are shown in Figs 1, 8 and 9 fur the silicon, nickel and iron alloys, respectively, as curves of percentage elongation (curves 1,3) and percentage contraction in cross-sectional area (curves 2,4) against temperature (°). The lattice parameters were measured by the X-ray back-reflection method for specimens cast into a metal mould, a graphite mould and in the deformed and annealed states. Figs 2, 6 and 7 show the X-ray patterns obtained after hot deformation and annealing (a) and after quenching from the liquid state (б); Figs 3, 4 and 5 show the corresponding microstructures. The authors conclude that for super-plasticity to appear at temperatures near that of the eutectic transformation a certain degree of metastability must be present. The super-plasticity effect can become very pronounced only when a considerable number of atoms of the second component participate in the atomic movement during the

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decomposition of the metastable state in the deformation process. The appearance of the effect also depends on the influence of temperature on the solubility of the second component in the solid solution (as suggested by Bochvar, Ref 4).

Card 3/3 There are 9 figures, 1 table and 4 Soviet references.

SUBMITTED: June 16, 1958

18.8200
18.1220

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E193/E135

AUTHORS: Presnyakov, A.A., and Starikova, G.V. (Alma-Ata)

TITLE: On the Anomalous Increase in the Ductility of (α+β)-Brasses

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, Nr 1, pp 123-126 (USSR)

ABSTRACT: The anomalous increase in the ductility of two-phase alloys in the phase transformation range has been observed and studied by many workers. However, there is no agreement in the interpretation of the experimental data and it was for this reason that the present investigation was undertaken. The experimental materials comprised brasses L-62, LS59-1, and L52 (β-brass). The elongation of the specimens, tested under static tensile stress, was taken as the criterion of the ductility of the alloys, this characteristic being most convenient for studying the "super-ductility" phenomena. The results of the first series of experiments are reproduced in Fig 1, where elongation (ε, %) is plotted against temperature (°C) for the L-62 and LS59-1 alloys (curves 1 and 2, respectively). The results of similar experiments, carried out on brass L-52, are given in Fig 2 where

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U.T.S. (σ_B, kg/mm^2) and ε are plotted against temperature (curves 2 and 1, respectively). The rate of heating during these experiments was approximately 16 °C/min. Although the LS59-1 brass contains 1% Pb, the maximum value of ε (180%) was practically the same for both L-62 and LS59-1 alloys; this value was attained at 870 °C in the former and at 770 °C in the latter alloy. Intercrystalline cracks appeared in the L-62 brass at 900 °C owing to the nearness of the melting point (903°C) but at other temperatures the specimens deformed normally and no symptoms of "burning" were observed. In the case of brass L-52, a sharp increase in ε was observed at 470-480 °C. This effect is attributed to the diffusion mechanism of the order-disorder transformation which, on heating, takes place in the β-brass at about 470 °C. The maximum value of ε, attained at 570-600 °C, can hardly be associated with the order-disorder transformation and it has been attributed by the present authors to some other factor of, as yet, unknown nature. The present authors have postulated that the anomalous increase in ε of the two-phase alloys is associated

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with the α → β transformation. This hypothesis was confirmed by the results of isothermal tests which are reproduced in Fig 3, where ε is plotted against time (t, min) at the test temperature for brass L-62, tested at 870 °C (curve 1) and brass LS59-1, tested at 725-740 °C (curves 2 and 3, respectively). ε decreased with increasing time at a given temperature, the rate of this decrease being accelerated by raising the test temperatures. Thus, in the first approximation, the anomalous increase in ε is proportional to the quantity of the α-phase still undergoing the α → β transformation. This conclusion has been confirmed by the results of microscopic examination of specimens of the brass LS59-1 after various treatments. The various structures, shown in Fig 4 (X 200), relate to: a - specimen heated to 770 °C and immediately quenched; b - the same specimen, deformed immediately after reaching 770 °C and quenched; B - specimen quenched after being held for 2 min at 770 °C; г - the same specimen, deformed after 2 min at 770 °C and quenched; d - specimen quenched after 5 min at 770 °C.

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It will be seen that at the moment of reaching 770 °C and after 2 min at this temperature, the alloy is still heterogeneous (Figs 4a, b); after 5 min at 770 °C, the alloy consists of β-phase only (Fig 4d). At the same time specimens, tested to rupture immediately on reaching 770 °C, or after 2 min at this temperature (i.e. at the moment when they still consisted of two phases) and then quenched, were found to consist (in the near-fracture region) of one phase only (Figs 4b and 2). The ductility of these specimens was higher than that of specimens which, at the moment of testing, consisted of one phase only ($\varepsilon_{\alpha+\beta} = 170\%$, $\varepsilon_{\beta} = 100\%$). Several conclusions were reached. (1) The anomalous increase in the elongation of specimens of (α+β)-brasses, tested in tension at temperatures above 700 °C, is associated with the $\alpha \rightarrow \beta$ phase transformation; the maximum increase in ductility of these brasses corresponds to the temperature at which the intensity of the $\alpha \rightarrow \beta$ transformation is at its highest. (2) The connection between the decomposition of the α-phase and the anomalous ductility effect has been

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confirmed by the variation in ductility of specimens subjected to isothermal treatment; the longer the soaking time at the given temperature, the lower is the elongation as a result of the alloy approaching more closely the state of equilibrium. For the same reason, ductility decreases with increasing temperature of the isothermal treatment. (3) Rapid increase in ductility of brass L-52, at 470-480 °C, is associated with the order-disorder transformation taking place in the alloy in this temperature range.

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There are 4 figures and 10 references, of which 9 are Soviet and 1 is German.

SUBMITTED: October 13, 1959

S/126/60/010/006/022/022
E201/E491

AUTHORS: Starikova, G.V. and Presnyakov, A.A.

TITLE: Change in Mechanical Properties of Nichrome on Formation of the K-State

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.6, pp.943-945

TEXT: The anomalous rise of the electrical resistance on annealing of nichrome after quenching was ascribed by Thomas (Ref.1) to formation of the K-state. The present authors report that the tensile strength of nichrome wire, 3.9 mm in diameter, was not greatly affected by annealing at comparatively low temperatures but a 400 to 500°C anneal raised the strength by 6% compared with the strength of quenched non-annealed nichrome. Annealing at 600 to 700°C lowered the tensile strength again. These changes in the tensile strength were ascribed to formation of the K-state and its subsequent destruction above 500°C. The results obtained are shown in Fig.1 and 2. Fig.1 gives the tensile strength σ_B (in kg/mm^2), contraction ψ, and extension δ as a function of the annealing temperature (0 to 700°C). Fig.2 shows the plot of σ_B and ψ against the

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Change in Mechanical Properties of Nichrome on Formation of the K-State

duration of the 450°C anneal (in minutes). There are 2 figures and 3 references: 2 Soviet and 1 non-Soviet.

ASSOCIATION: Institut yadernoy fiziki AN KazSSR
(Institute of Nuclear Physics AS KazSSR)

SUBMITTED: July 4, 1960

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Change in Mechanical Properties of Nichrome on Formation of the K-State

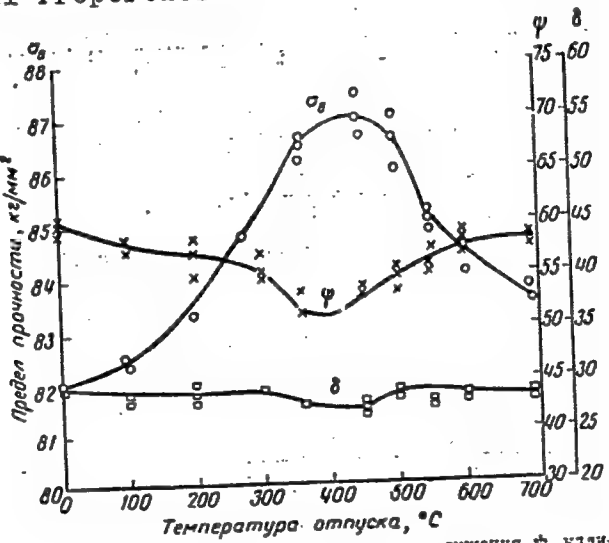

Рис. 1. Изменение предела прочности $\sigma_в$, сужения ψ, удлинения δ нихрома с температурой отпуска.

F.g.1.
P.944

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Change in Mechanical Properties of Nichrome on Formation of the K-State

Fig.2
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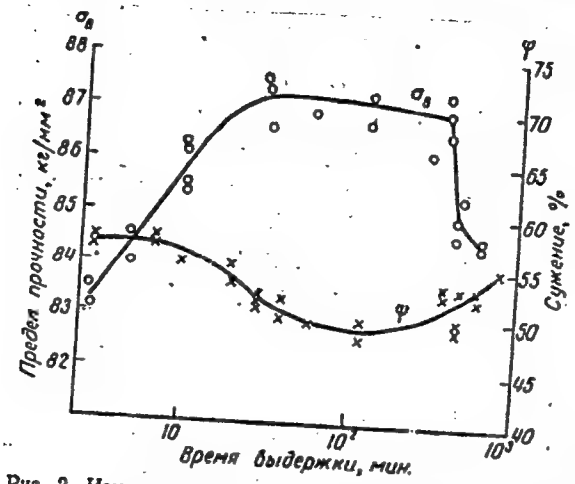

Рис. 2. Изменение предела прочности $\sigma_в$, сужения ψ нихрома со временем выдержки при 450° С.

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PHASE I BOOK EXPLOITATION SOV/5690

Akademiya nauk Kazakhskoy SSR. Institut yadernoy fiziki.

Metallovedeniye i obrabotka metallov davleniyem (Physical Metallurgy and Pressworking of Metals) Alma-Ata, 1961. 183 p. (Series: Trudy Instituta yadernoy fiziki, t. 4) 2,450 copies printed.

Resp. Eds.: I. G. Grinman and A. A. Presnyakov; Resp. Secretary: V. V. Chervyakova; Eds.: M. Ya. Brailovskaya and T. I. Shevchuk; Tech. Ed.: Z. P. Rorokina.

PURPOSE: This book is intended for scientific research workers, technical personnel in industry, and students and aspirants interested in problems of physical metallurgy and the pressworking of metals.

COVERAGE: The book, Volume IV of the Transactions of the Institute of Nuclear Physics, Academy of Sciences Kazakh SSR, contains papers reviewing problems of physical metallurgy. Attention is given to a consideration of metal ductility, strength, phase transformation, and the ordering of various alloys, and to a discussion of the diffusion mechanism of the plasticity. Experimental findings concerning strength, deformation, and external friction in the working of nonferrous metals and alloys are included in papers dealing with metal rolling.

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Physical Metallurgy and Processing of Metals SOV/5690

Problems of automatic inspection and control of multidraft wire-drawing machines are also considered. Most of the papers are accompanied by references, the majority of which are Soviet.

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11-22-61

PRESNYAKOV, A.A. (Alma-Ata); STARIKOVA, G.V. (Alma-Ata); SAMOYLOV, V. A. (Alma-Ata); CHERVYAKOVA, V.V. (Alma-Ata)

Superplasticity of cast metastable eutectics. Izv.AN. SSSR. Otd. tekh. nauk. Met. i topl. no.2:146-147 Mr-Ap '61. (MIRA 14:4)

1. Institut yadernoy fiziki AN KazSSR.
(Nonferrous alloys--Metallography) (Eutectics)